

JUL 20 2007

Application No.: 10/699454

Case No.: 59056US002

Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1.-12. (Canceled)

13. (Currently Amended) The assembly of claim 1, A fuel cell stack assembly, comprising:
a plurality of fuel cell assemblies, each of the fuel cell assemblies comprising:
a first flow field plate;
a second flow field plate; and
a membrane electrode assembly (MEA) provided between the first and second
flow field plates and having an active area;
a plurality of registration apertures defined in each of the MEA, the first flow field plate,
and the second flow field plate, the respective registration apertures situated within non-active
areas of the MEA when the first and second flow field plates and the MEA are axially aligned
within the stack assembly, the registration apertures having an inner surface; and
a plurality of registration posts configured for reception within the plurality of registration
apertures, each of the registration posts having an outer surface differing in shape from a shape of
the inner surface of the registration apertures, the inner surface of the registration apertures
contacting the outer surface of the registration posts at a plurality of discrete press-fit locations,
wherein the registration posts comprise a hollow outer member and a solid core member,
the hollow outer member configured to receive the solid core member.

14. (Currently Amended) The assembly of claim 1, A fuel cell stack assembly, comprising:
a plurality of fuel cell assemblies, each of the fuel cell assemblies comprising:
a first flow field plate;
a second flow field plate; and
a membrane electrode assembly (MEA) provided between the first and second
flow field plates and having an active area;

Application No.: 10/699454

Case No.: 59056US002

a plurality of registration apertures defined in each of the MEA, the first flow field plate, and the second flow field plate, the respective registration apertures situated within non-active areas of the MEA when the first and second flow field plates and the MEA are axially aligned within the stack assembly, the registration apertures having an inner surface; and

a plurality of registration posts configured for reception within the plurality of registration apertures, each of the registration posts having an outer surface differing in shape from a shape of the inner surface of the registration apertures, the inner surface of the registration apertures contacting the outer surface of the registration posts at a plurality of discrete press-fit locations,

wherein the registration posts comprise a compressible hollow outer member and a solid core member, the solid core member having an outer diameter greater than an inner diameter of the hollow outer member, the solid core member compressibly deforming the hollow outer member when the solid core member is positioned within the hollow outer member.

15.-54. (Canceled)

55. (Currently Amended) The sub-assembly of claim 44, A fuel cell sub-assembly for incorporation in a fuel cell stack assembly, comprising:

a flow field plate;

a membrane electrode assembly (MEA) positioned adjacent the flow field plate and having an active area;

a plurality of registration apertures defined in each of the flow field plate and the MEA, the respective registration apertures situated within non-active areas of the MEA when the flow field plate and the MEA are in axial alignment, the registration apertures having an inner surface; and

a plurality of registration posts configured for reception within the plurality of registration apertures, each of the registration posts having an outer surface differing in shape from a shape of the inner surface of the registration apertures, the inner surface of the registration apertures contacting the outer surface of the registration posts at a plurality of discrete press-fit locations,

wherein the registration posts comprise a hollow outer member and a solid core member, the hollow outer member configured to receive the solid core member.

Application No.: 10/699454Case No.: 59056US002

56.-71. (Cancelled)

72. (Currently Amended) The method of claim 71, A method of forming a fuel cell stack assembly, comprising:

providing a first flow field plate, a second flow field plate, and a membrane electrode assembly (MEA) having an active area, a plurality of registration apertures defined in each of the MEA, the first flow field plate, and the second flow field plate;

aligning the first and second flow field plates and the MEA so that the respective registration apertures are in axial alignment, the registration apertures having an inner surface;

providing a plurality of registration posts having an outer surface differing in shape from a shape of the inner surface of the registration apertures; and

inserting the plurality of registration posts into the plurality of registration apertures so that the inner surface of the registration apertures contact the outer surface of the registration posts at a plurality of discrete press-fit locations,

wherein the registration posts each comprise a hollow outer member and a solid core member, the method further comprising inserting the hollow outer members into the registration apertures and inserting the solid core members into the hollow outer members.

73. (Currently Amended) The method of claim 71, A method of forming a fuel cell stack assembly, comprising:

providing a first flow field plate, a second flow field plate, and a membrane electrode assembly (MEA) having an active area, a plurality of registration apertures defined in each of the MEA, the first flow field plate, and the second flow field plate;

aligning the first and second flow field plates and the MEA so that the respective registration apertures are in axial alignment, the registration apertures having an inner surface;

providing a plurality of registration posts having an outer surface differing in shape from a shape of the inner surface of the registration apertures; and

Application No.: 10/699454Case No.: 59056US002

inserting the plurality of registration posts into the plurality of registration apertures so that the inner surface of the registration apertures contact the outer surface of the registration posts at a plurality of discrete press-fit locations.

wherein the registration posts each comprise a hollow outer member and a solid core member, the solid core member having an outer diameter greater than an inner diameter of the hollow outer member, the method further comprising inserting the hollow outer members into the registration apertures and inserting the solid core members into the hollow outer members to compressibly deform the hollow outer members.

74.-90. (Canceled)